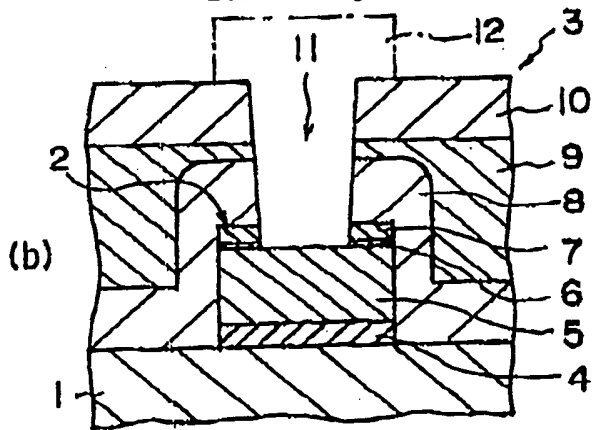
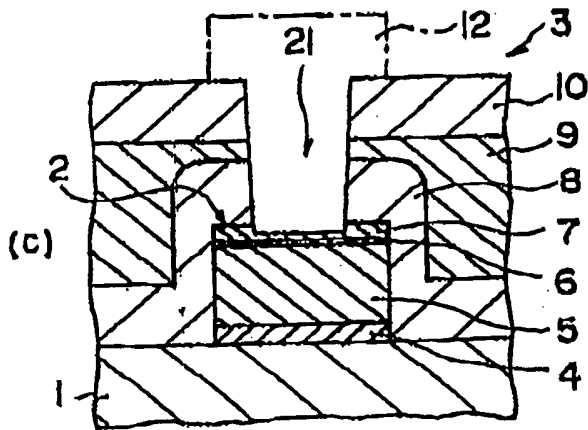


Before etching



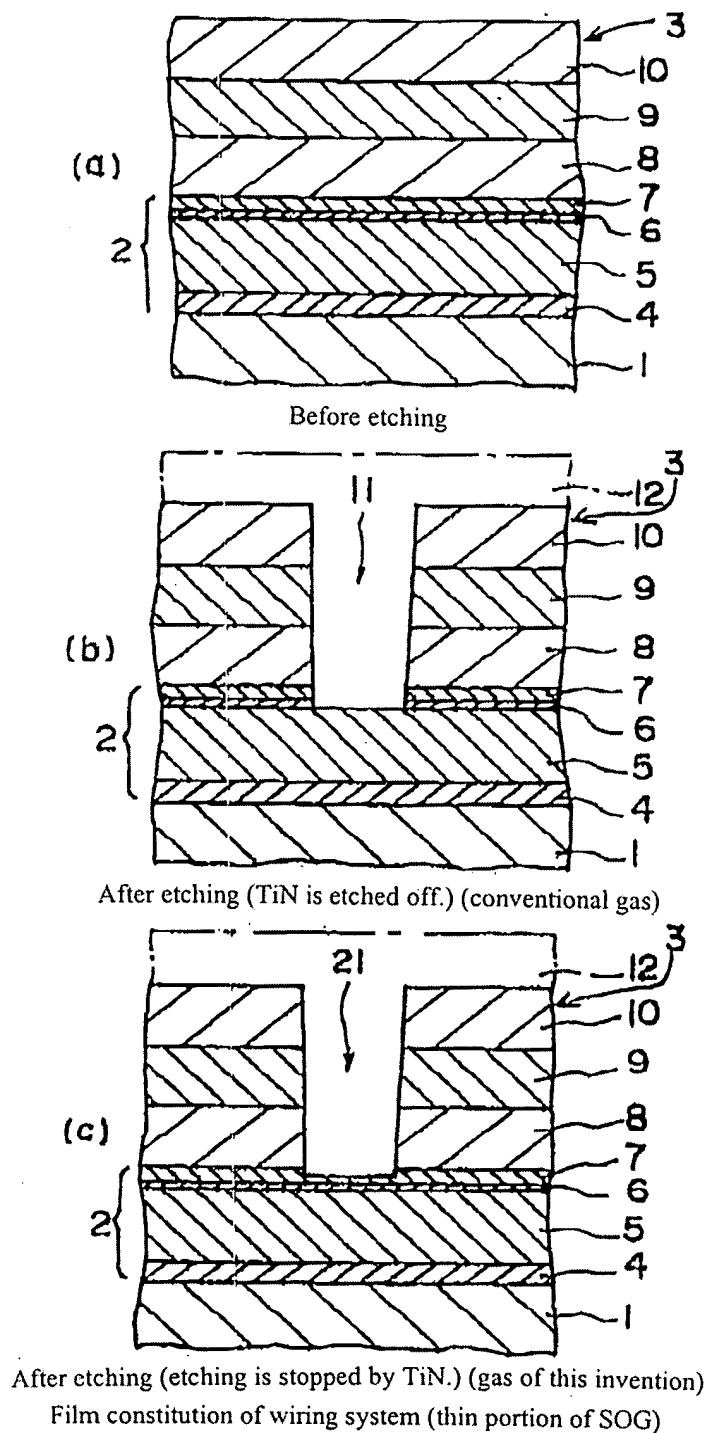
After etching (TiN is etched off.) (conventional gas)



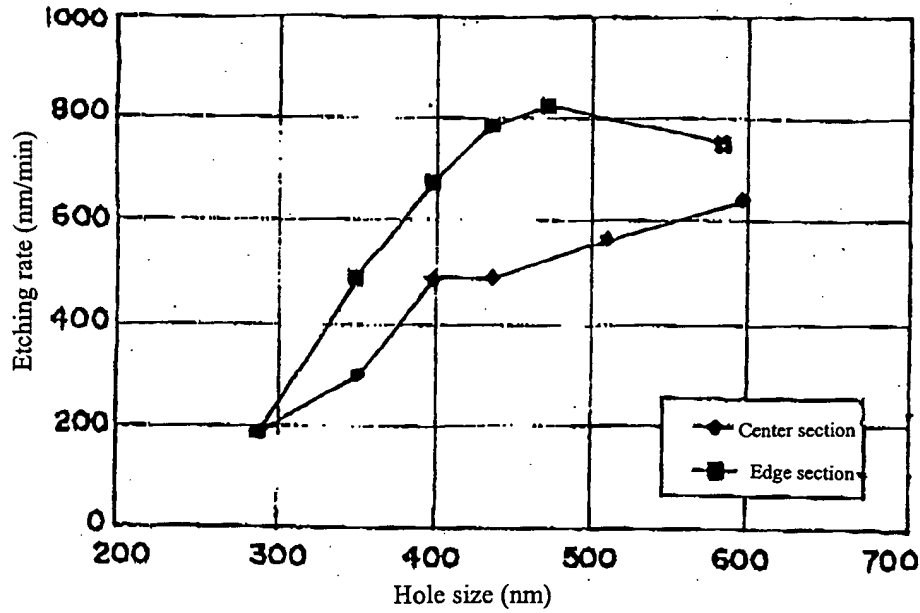
After etching (TiN is etched off.) (gas of this invention)

Film constitution of wiring system (thin portion of SOG)

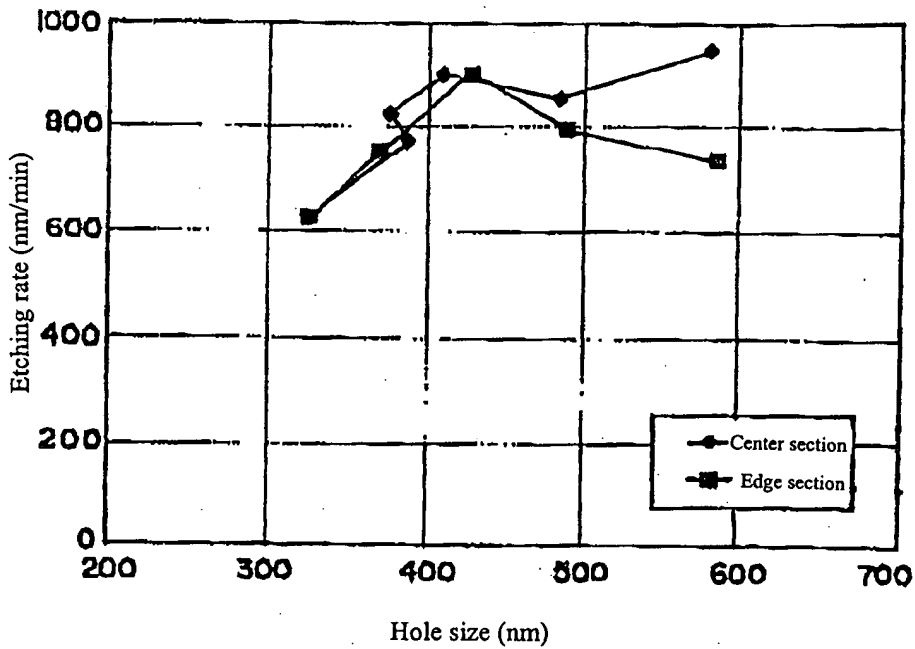
FIG. 1



5 FIG. 2

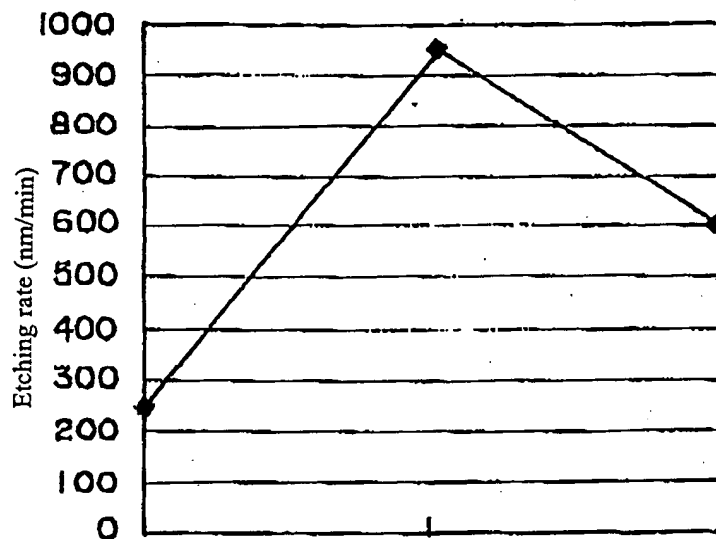


(a) Conventional conditions



(b) Conditions of this invention
Dependence of SOG etching rate on hole size

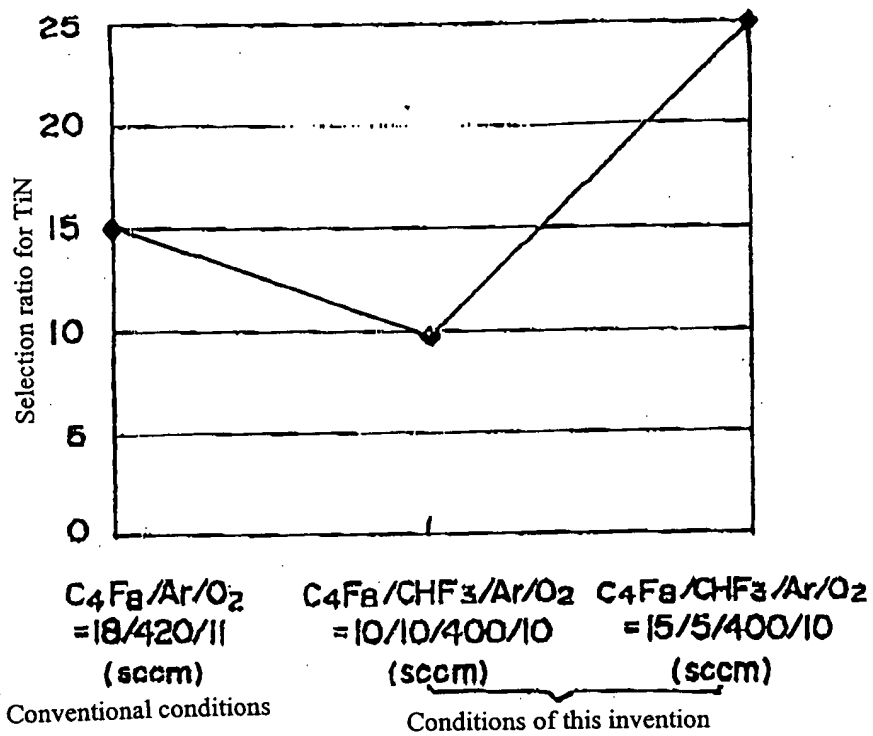
FIG. 3



C₄F₈/Ar/O₂ = 18/420/11 (sccm) C₄F₈/CHF₃/Ar/O₂ = 10/10/400/10 (sccm) C₄F₈/CHF₃/Ar/O₂ = 15/5/400/10 (sccm)
 Conventional conditions Conditions of this invention

Dependence of SOG etching rate on gas composition (when hole size is 0.32 μm)

FIG. 4



Dependence of selection ratio for TiN on gas composition
(when hole size is $0.32 \mu m$)

FIG. 5

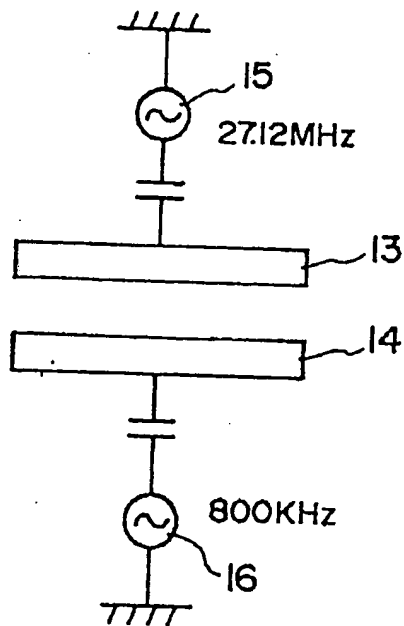


FIG. 6